6-21-05

Del,

Please see the attached comments that Robert Gatt has concerning Ruidoso's PER.

These will need to be addressed as well as my comments, which you have already submitted a letter to me today.

I will see you on Thursday afternoon. Hopefully things will go smoothly & we can get this project going.

Thanks,
Stephanie Dabbs

Bob Gott Comments
Ruidoso WWTP PER

June 2, 2005

RE: Review of Preliminary Engineering Report of Village of Ruidoso & City of Ruidoso Downs Joint Use Board WWTF

The New Mexico State University Water Utilities Technical Assistance Program (NMSU WUTAP) is contracted by NMED CPB to review PERs, new facilities, and facility upgrades. The following are comments on the Village of Ruidoso & City of Ruidoso Downs Joint Use Board PER.

Conventional Biological Nutrient Removal (BNR)

1. Due to the fact the BNR alternative encompasses numerous treatment processes, i.e. alkalinity feed, biological phosphorus removal, nitrification, denitrification, BOD removal, sludge dewatering, and thickening, and possibly two chemical phosphorus removal systems, it would seem prudent to augment the operational staff with several upper level certified operators. Is this being considered?
2. Of the three feasible alternatives considered – BNR, simultaneous nitrification & denitrification, and membrane bioreactors – the BNR alternative offers the operational staff the most flexibility.

Simultaneous Nitrification and Denitrification

1. Considering the nitrification/denitrification process, if the sym-bio fails what flexibility does the operator have to ensure compliance?
2. The statement made on pg. 5-8 "low dissolved oxygen levels reduces the growth of filamentous bacteria" is true if we don't consider filaments that occur from low DO i.e. 1701, S. natans, and H. hydrossis

Membrane Bioreactors (MBR) – Pg. 5-10, Chemical Phosphorus Removal

1. If the system requires chemical phosphorus removal for the effluent, does the last bullet say clarifiers will not be necessary, and if so, how will the phosphorus floc be removed from the flow stream?

General Questions

1. If the phosphorus limit remains at 0.1 mg/l are you sure this limit can be met even with chemical treatment?
2. If chemical treatment is used, will alkalinity need to be added to the treated effluent?